WHAT IS CLAIMED IS:

1. A method for controlling at least two electrical loads in a circuit arrangement, the method comprising:

controlling the at least two electrical loads with at least two pulse-width-modulated signals, wherein an inductor and a capacitor affect electromagnetic compatibility, and an inductor current flowing in a lead is buffered by the capacitor; and

generating the at least two pulse-width-modulated signals so as to be staggered in time;

wherein one of the electrical loads is switched on by one of the pulse-width-modulated signals, after the other one of the electrical loads is switched off by another one of the pulse-width-modulated signals.

2. The method of claim 1, wherein the another one of the pulse-width-modulated signals is a first control signal, the one of the pulse-width-modulated signals is a second control signal, and cut-off edges of the first control signal coincide with switching-on edges of the second control signal independently of a pulse duty factor.

3. The method of claim 1, wherein the electrical loads are controlled using a pulse duty factor of 50%.

4. The method of claim 3, wherein a direct current is generated in the lead to the electrical system of a motor vehicle at the pulse duty factor of 50%.

5. The method of claim 1, wherein the two electrical loads are controlled by respective, assigned power semiconductor components, which are assigned separate control lines, respectively, for transmitting the pulse-width-modulated signals.

6. The method of claim 3, wherein the pulse duty factor is set at a micro-controller.

7. The method of claim 2, wherein a frequency of the inductor current flowing in the line remains the same for different pulse duty factors of the pulse-width-modulated signals.

8. A device for controlling at least two electrical loads, comprising:

an inductor;

a capacitor; and

a micro-controller to control the electrical loads and to generate first and second control signals, wherein the micro-controller includes a first output and a second output, to which a first control line and a second control line are connected to provide synchronized control or clocked control of power semiconductor components;

wherein:

control signals that control the electrical loads include pulse-width-modulated signals,

the inductor and the capacitor affect electromagnetic compatibility, and an inductor current flowing in a lead is buffered by the capacitor,

the pulse-width-modulated signals are generated so as to be staggered in time, and

one of the electrical loads is switched on by one of the pulse-width-modulated signals, after the other one of the electrical loads is switched off by another one of the pulse-width-modulated signals.

9. The device of claim 8, wherein the power semiconductor components include at least one of a MOSFET transistor, a bipolar transistor, an IGBT transistor, and an IGCT transistor.

10. The device of claim 8, wherein the another one of the

pulse-width-modulated signals is the first control signal, the one of the pulse-width-modulated signals is the second control signal, and cut-off edges of the first control signal coincide with switching-on edges of the second control signal independently of a pulse duty factor.

11. The device of claim 8, wherein the electrical loads are controlled using a pulse duty factor of 50%.

12. The device of claim 11, wherein a direct current is generated in the lead to the electrical system of a motor vehicle at the pulse duty factor of 50%.

13. The device of claim 8, wherein the electrical loads are controlled by respective, assigned ones of the power semiconductor components, which are assigned separate control lines, respectively, for transmitting the pulse-width-modulated signals.

14. The device of claim 11, wherein the pulse duty factor is set at the micro-controller.

15. The device of claim 10, wherein a frequency of the inductor current flowing in the line remains the same for different pulse duty factors of the pulse-width-modulated signals.